COMNAVAIRFOR, Code N01J
Box 357051
San Diego, CA 92135-7051

Mark Olinger
1276 Cypress Creek Drive
Mount Vernon, TX 75457

August 7, 2017

Dear Mr. Mark Olinger,

This letter is in response to your request under the Freedom of Information Act (FOIA) request, dated June 11, 2017, for information pertaining to the records for Heavy Attack Squadron (VAH-21) for the period 1 September 1968-16 June 1969. Your request was received by this office on July 25, 2017, after being forwarded by Naval History and Heritage Command, and has been processed under FOIA, 5 U.S.C. §522. It has been assigned FOIA #DON-NAVY-2017-007401.

The following documents are provided in their entirety as responsive to your request: (1) VAH-21 Historical Summary, September 1968 - June 1969.

You have the right to an appeal. It must be received within 90 calendar days from the date of this letter. Please provide a letter requesting an appeal, with a copy of your initial request and a copy of the letter of denial, in an envelope marked "Freedom of Information Act Appeal." You are encouraged (though not required) to provide an explanation why you believe the redactions were inappropriate or our search was inadequate. Also, please provide a copy of your appeal letter to us at Commander, Naval Air Force, Pacific, Code N01J Bldg. 11 Rm 241, P.O. Box 357051, San Diego, CA 92135-7051.

To ensure that your request is received by the deadline, I recommend that you make your appeal by using FOIAonline. To do so, go to FOIAonline (a website which appears as the top item if you search the internet for "FOIAonline"), establish an account if you have not already (click "Create an Account," the bottom of three green buttons on the right of the FOIAonline home page), locate your original request (enter a keyword or the tracking number of the request in the "Search for" field on the "Search" tab), click on the request, and then click on the "Create Appeal" tab in the left-hand column. The basic information from your request will be duplicated for you, and you can type in the basis of your appeal.

Alternatively, you may mail your appeal to The Judge Advocate General (Code 14), 1322 Patterson Avenue SE, Suite 3000, Washington Navy Yard, DC 20374-5066. If you have any questions, please contact me LN1(SW/AW/IW) George Amerson at george.amerson@navy.mil, (619) 767-1554 or my FOIA coordinator, LCDR Matthew Tucker at matthew.l.tucker@navy.mil and (619) 545-2796. You may also contact the DON FOIA Public Liaison, Christopher Julka, at christopher.a.julka@navy.mil, (703)697-0031.

Sincerely,

George Amerson
Force Legalman
Commander Naval Air Force, U.S. Pacific Fleet

MEMO FOR THE RECORD

27 March 2007

On this date, Mr. Eugene Simpson, KEI, reviewed the 1968-1969 Command History Report of Heavy Attack Squadron Twenty One (VAH-21). He determined that the report was declassified in entirety.

Curtis A. Utz
Historian
Head, Naval Aviation History & Archives Section
Naval Warfare Division
Naval Historical Center

DEPARTMENT OF THE NAVY
HEAVY ATTACK SQUADRON TWENTY ONE
FPO San Francisco 96655

SECRET

DECLASSIFIED

FF12/VAH-21/00:rs
5750
Ser 002
16 June 1969

DECLASSIFIED

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From: Commanding Officer, Heavy Attack Squadron TWENTY ONE
To: Distribution

Subj: VAH-21 History and Operations; submission of

Encl: (1) VAH-21 Historical Summary, 1 September 1968 - 16 June 1969

1. Enclosure (1) is hereby forwarded for the two fold purpose of assimilating in one document the significant operational events in Project TRIM/VAH-21 and to set forth some lessons learned that could be of use in future undertakings of this nature.

N. D. DUNNAN

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# HEAVY ATTACK SQUADRON TWENTY ONE

# (VAH-21)

# HISTORICAL SUMMARY

# (September 1968 - June 1969)

CONTENTS

## BACKGROUND

Project TRIM (Trails and Roads Interdiction/Multi-Sensor) was a navy sponsored development and test program directed towards the creation of a viable airborne night attack capability in a counter-insurgency environment. Following an initial feasibility study by OPNAV in 1966, the Naval Air Systems Command negotiated a contract with Lockheed California for the modification of four (4) SP-2H aircraft. The modification included installation of an integrated fire control system utilizing low light level television (LLLTV) and real-time forward looking infra-red (FLIR) as sensors, a completely new hybrid navigation system using components from the P-3 Orion and C-141 aircraft, and a variety of supplementary and experimental avionics and ordnance systems. The four aircraft, redesignated AP-2H, were delivered to the Naval Air Test Center (NATC) for suitability testing. NATC maintained a detachment at the Naval Air Facility, Cam Ranh Bay, Republic of Vietnam from January thru August 1968 which was tasked with the operational suitability testing of the AP-2H under combat conditions. Results of this testing is fully documented in the "Project TRIM Final Report of Test Results" published by NATC.

The TRIM detachment was formally established as Heavy Attack Squadron TWENTY ONE (VAH-21) on 1 September 1968 at the Naval Air Facility, Cam Ranh Bay with an assigned homeport at the U. S. Naval Station, Sangley Point, Luzon, Republic of the Philippines.

VAH-21 maintained a detachment at NAF Cam Ranh Bay until 8 June 1969 to carry out mission responsibilities which were:

A. Conduct night surveillance and strike missions in the Republic of Vietnam as directed by Commander U.S. Naval Forces, Vietnam.

B. Conduct operational suitability tests on prototype avionics and ordnance systems as directed by NAVAIRSYSCOMHQ.

C. Training to accomplish A and B.

Disestablishment of VAH-21 occured on 16 June 1969 with aircraft asset distribution as follows: Three (3) transferred to Davis Monthan AFB for preservation and one (1) returned to NATC, Patuxent River, Md. for future RDT&E efforts.

This report summarizes the results of the assigned missions.

II

## COMBAT OPERATIONS

A. GENERAL.

1. Two hundred thirty four combat sorties were flown by VAH-21 in the Republic of Vietnam. Approximately 80% of the missions were conducted over IV Corps, 10% at Danang and the remainder in II Corps and the Rung Sat SZ. Combat effectiveness varied significantly during the course of this effort and was strongly influenced by a variety of factors including geographic area, enemy activity level, weather and aircraft availability. A detailed breakdown of combat effectiveness by operational areas is provided below, however, a broad understanding of VAH-21's combat effectiveness can best be appreciated by considering VAH-21 operations as occuring in two distinct but overlapping phases.

2. The first phase, from September through November 1968, was characterised by a highly diversified operational effort. This was a transitional period in many respects. The squadron was still manned by the original NATC personnel, who, in addition to their regular duties, also provided the training for replacement personnel. Sorties were conducted in IV CTZ, Danang, Rung Sat and II CTZ reflecting the continuing NATC effort to demonstrate the AP-2H capabilities in a wide variety of tactical environments. This diversified effort continued the basic emphasis of the NATC detachment: a high priority on testing and evaluation at the expense of overall combat effectiveness. Diversity of operations, while highly desirable from the testing standpoint, seriously restricted the ability of the flight crews to develop a high proficiency level and effective coordination with supporting units. The flexibility required to meet continually changing operational requirements led to serious maintenance problems with a resultant decrease in aircraft availability.

3. Finally, the aircraft continued to operate with many of the major deficiencies discovered during the course of the NATC operational evaluation. Serious limitations in the automatic bombing system and continuing problems with the 40mm grenade launcher system seriously limited combat effectiveness. Enemy activity during Phase I was moderate; VAH-21 combat effectiveness was marginal at best.

4. The second phase, commencing about 1 November was characterized by a major consolidation of effort as the newly trained flight crews replaced the original TRIM cadre. Operations in this wide variety of areas entailed a high risk of error and confusion. Consequently, VAH-21 sorties were now focused on IV Corps where the weather, topography and previous results indicated the greatest opportunity for effective

utilisation of the AP-2H. The reduced level of maintenance experience dictated concentration of effort upon those sensors and ordnance systems necessary to operate in the IV Corps area. Fully operational navigation or radar systems were no longer required for IV Corps operations since precise navigation could be achieved using visual navigation in most areas. For the first time, VAH-21 began to consistently fly all its scheduled missions, and on occassion additional sorties were scheduled when aircraft availability permitted. Consolidation of effort permitted realistic planning and accurate projections in areas such as availability of manpower, aircraft, spare parts and operational requirements. With VAH-21 providing consistent air support to IV CTZ, coordination improved significantly with the Army and Air Force units involved. Nightly missions to IV CTZ became routine and the efficiency of all parties concerned improved.

5. Several technical improvements and changes in the military situation contributed to improved combat effectiveness. The semi-automatic bombing system, a modification developed to overcome the basic deficiencies in the contrast target tracking sub-system, became operational in all four aircraft. As the operators gained proficiency with the new bombing system, direct hits with bombs became more common. The XM-129 grenade launchers also became operational about this time and greatly increased the firepower of the AP-2H. Finally, from November through February, a heavy increase in Viet Cong logistics activity in support of the 1969 TET offensive greatly increased the number of targets available for attack. The combination of all these factors resulted in a sharp increase in targets detected and destroyed. The combat effectiveness of VAH-21 continued to improve slowly throughout the remainder of Phase II, however, the equipment and airframes became increasingly difficult to maintain, as a result of deterioration with age, airframe overstress from overweight operations, high G maneuvers and frequent battle damage. Further, combat readiness was reduced by this consistent overweight condition of 5000 or more pounds above maximum recommended P-2 weights which along with the extremely high parasitic drag of the chin blister necessitated three engine operation until all ordnance was dropped. Operating from Cam Ranh Bay, this provided approximately one hour of on station time.

B. IV CORPS.

1. Operations in this area were maintained continuously throughout the 9½ month existence of VAH-21. Sorties were flown in support of the Senior Advisor IV Corps, CTF 115 (Market Time), Operation SEA LORDS and Operation GIANT SLINGSHOT. Command and control relationships were rather complicated because these missions involved close coordination between Navy, Army and Air Force units from both the United States and Vietnamese Armed Forces.

2. The basic objective of IV CTZ operations was to disrupt and interdict the Viet Cong logistics system operating on the canals of IV CTZ. Consequently, the primary targets were waterborne logistics craft, ranging from 20 foot sampans up to 80 foot motorized boats and barges. As intelligence coordination with local forces improved, structures and suspected storage and camp sites became increasingly common targets.

3. Enemy opposition consisted primarily of small arms and automatic weapons fire (up to.50 caliber), however a few instances of rocket propelled grenade (RPG) fire were recorded during these operations. A record of aircraft battle damage resulting from these sorties is included in Appendix II.

4. Strikes in IV Corps produced the most tangible and consistent results. Combat effectiveness varied considerably due to aircraft availability, crew proficiency, avionics improvements and seasonal climactic conditions. IV Corps operations were more effective than the other theaters of employment for the following reasons:

a. Flat terrain with clearly defined landmarks reduced the need for precision electronic navigation. At the normal operating parameters of 1500 foot AGL and 180 KTS, precise navigation was achieved via visual navigation. Electronic navaids were necessary only to confirm a visual checkpoint. The clearly defined network of canals in IV CTZ permitted the crew to maintain close navigational accuracy through a pre-planned tactical flight path which was repeatedly verified by visual checkpoints.

b. Simplicity of coordination requirements with units external to the aircraft permitted the flight crew to effectively concentrate their efforts on internal coordination. Prior to entering the target area, coordination and communications with USAF and USA units were extensive, however, once cleared into the specified strike zone, the aircraft was free to operate independently and immediately engage any target detected.

c. Weather conditions, especially heavy thunderstorm activity during the southwest monsoon season, and heavy smoke during the late fall resulting from the burning of rice paddies, reduced operational effectiveness but never completely precluded operations in the area.

d. Effective coordination and communications between the units involved in the planning and execution of these missions permitted the timely and effective resolution of problem areas. The close liaison between VAH-21 and the USA and USAF elements at Binh Thuy and Can Tho,







OK

plus additional direct liaison between VAH-21 and CTF 115 (both at Cam Ranh Bay) throughout the entire 9½ month period permitted the creation of an efficient coordinated effort by the many diverse elements involved.

C. DANANG.

1. Armed reconnaissance flights in the vicinity of Danang were conducted for three months. The missions were flown in support of the 1st Marine Air Wing. This operational committment was originally undertaken by the TRIM Detachment in mid July and continued until 26 October 1968 when poor weather conditions forced cancellation of the operation.

2. Danang operations were far more complex than in IV CTZ for a number of reasons. Because the AP-2H could only be efficiently supported at NAF Cam Ranh Bay, all sorties flew to Danang, briefed with the 1st MAW, flew about a 2-3 hour mission at Danang, debriefed with the 1st MAW and then returned to Cam Ranh Bay. This situation substantially reduced the maintenance time available at Cam Ranh Bay. The aircraft frequently suffered mechanical difficulties while at Danang which required sending parts and maintenance personnel to Danang to repair the aircraft. The overall effect on aircraft availability was severe.

3. Communications between Cam Ranh Bay and Danang were marginal. Since weather was a continuous problem, it was imperative that VAH-21 have accurate weather forecasts prior to launching from Cam Ranh Bay. Unfortunately, poor communications plus sketchy forecasts from the local weather facilities frequently led to inflight aborts over Danang because of weather.

4. Tactical operations in the vicinity of Danang airfield were conducted in an area of high aircraft, artillery and flare density. In order to preclude midair collisions and incursions through artillery fire, the aircraft was restricted to a pre-planned altitude and flight path. The aircraft was required to maintain continuous radio contact with Danang Direct Air Support Center, Fire Support Control Center, Danang and Danang Tower. The potential for confusion was demonstrated twice during these operations: first, when an AC-47 gunship opened fire directly above the AP-2H forcing the VAH-21 pilot to execute drastic evasive maneuvers to avoid being hit, and second, when an artillery flare burst 100 feet directly in front of the aircraft

5. Danang operations failed to utilize the full ordnance potential of the AP-2H, while simultaneously requiring more from the systems employed than VAH-21 could produce. VAH-21 was authorized to use ordnance only in self-defense. This was the necessary consequence of

a fluid military situation on the ground. To preclude inadvertant attacks on our own troops, all targets detected were reported to Danang FSCC, correlated with troops on the ground and subsequently attacked with artillery if classified as enemy. This system worked very effectively after a little practice, unfortunately due to navigational problems, the aircraft could seldom provide sufficient target accuracy to permit effective artillery engagement. The AP-2H is not sufficiently maneuverable to spot and correct artillery fire so the overall combat effectiveness of these missions was severely limited. In the original planning stages, heavy emphasis was placed upon the capabilities of the DLIR infra-red mapping system in the AP-2H to provide timely intelligence on enemy activity. During Danang operations the availability on this system was extremely low.

6. The original plan for Danang operations envisioned a fully operational AP-2H in the updated avionics configuration (rapid recon plus ASN-24 digital navigation system and EVE FLIR). In actual practice the unique systems which would have made the difference between a clearly successful mission and a marginal one failed to operate properly. Overall, as a test and evaluation effort, Danang operations demonstrated that the systems, when operating properly, could provide the capabilities required. To this extent the operations were successful. The attempt to employ the AP-2H in a continuing combat role, however, proved impractical primarily because the AP-2H could not be maintained to the required availability.

D. II CORPS.

1. Occasional flights were conducted over the mountains near Cam Ranh Bay in support of the Army Special Forces Unit located at Dong Ba Tinh. These missions were of a reconnaissance nature relying on the DLIR system. The basic objective was to locate enemy fires in the hills in an attempt to confirm intelligence reports obtained from VC POW's. The Army usually requested these flights just prior to inserting forces for a ground sweep of the area. In a few instances, enemy resistance was encountered by ground troops investigating targets detected by VAH-21, however this effort was so limited in scope and frequency that any conclusions regarding combat effectiveness would be purely speculative.

E. RUNG SAT SPECIAL ZONE.

1. A series of flights were conducted in the Rung Sat Special Zone employing the same basic guidelines as used on IV CTZ missions. Control and coordination with the PCF/WPB units patrolling the main channel to Saigon was achieved through radio communications with the Navy at Nah Be. Since the Rung Sat received continuous attention by a

variety of military units, enemy activity in the area was very covert. Target detections were very low and it was concluded that the AR-2H capabilities did not serve a useful purpose in the Rung Sat.

III

## TESTING

A. GENERAL.

1. The Project TRIM Detachment completed the testing on most of the AP-2H systems by August 1968, however several new systems and incomplete test data on a few of the major AP-2H sensors kept VAH-21 in the test and evaluation business throughout the Fall of 1968.

B. BLACK CROW.

1. BLACK CROW is a sensor designed to detect the ignition systems of internal combustion engines and to provide the airborne platform with accurate directional information. Initial testing by NATC was conducted on the third AP-2H in CONUS followed by combat tests in Vietnam during the Summer of 1968. The system fell far below design specifications and was returned to the manufacturer for complete rework. The improved system arrived at Cam Ranh Bay in the Fall of 1968.

2. Effective testing was severely limited by the following factors:

a. The systems were installed in only one aircraft. Low availability of the aircraft reduced the number of flights available for tests.

b. Controlled tests with ground truth were not feasible in a combat environment, hence accurate test data was difficult to obtain.

c. The system was not reliable enough nor sufficiently effective to compliment the other TRIM sensors. Hence, in combat the information produced by the system was frequently obscured by the higher priority information available from the TV and FLIR.

d. Operational commitments prevented VAH-21 from flying missions for the exclusive testing of the system, and the tests under combat produced only random and undocumented results.

3. The general conclusions resulting from these tests were that the detection range was too short, the incidence of false targeting was too high, the bow antenna installation was unsatisfactory due to restrictions on visibility and operator egress and the reliability was too low. The system was turned over the the Air Force for additional testing in the C-130 aircraft with a different antenna system in the Spring of 1969.

C. XM-129 40MM GRENADE LAUNCHERS.

1. Eight 40mm grenade launchers were installed in the left bomb bay of each AP-2H aircraft. During the initial tests, a number of serious problems developed which restricted the operational utilization of the systems. High speed photographic recording of the launcher firesout, using dummy rounds, showed that rounds fired from the muzzle of the aft guns had a high probability of colliding with ejected shell casings from the forward guns. With live ammunition, the possibility of a grenade detonation immediately beneath the aircraft was high. The problem was resolved by installing a chute along the bomb bay door so that ejected shells left the aircraft aft of the guns. Additionally, link separations in the belted ammunition caused guns to jam, and on occasion a round would twist sideways in the firing chamber. NATC conducted several tests to demonstrate that the likelihood of round detonation in the chamber caused by a jam was fairly remote. Modifications and additional tests significantly delayed the operational employment of the system.

2. Once clearance to use live ammunition was approved, a marked increase in fire power of the AP-2H was immediately apparent. The system continued to suffer from gun jams and link separations, however, enough rounds were usually fired out to demonstrate the potential of the system. In addition to the obvious increase in firepower available against targets detected by the TV and FLIR, the grenade launchers proved very effective at suppressing hostile groundfire. The system proved to be difficult to maintain because spares were limited and the guns sustained frequent damage from jammed rounds. The percentage of rounds fired out per gun fluctuated drastically throughout their employment. The fluctuations were the result of variation in quality of ammo lots, type of belting links used and condition of the guns. Despite these drawbacks the XM-129 grenade launcher system is one of the most successful and effective systems installed in the AP-2H.

D. CHEMI-LUMINESCENT MARKERS.

1. The semi-covert markers were tested on several flights, however it was difficult to utilize them on many missions due to very low availability of the retro launcher. When used, the markers were visible at ranges up to 3 miles and proved a distinct aid in relocating an area of interest

E. RAPID RECON/DLIR SYSTEM.

1. The inflight processing system for the DLIR scanner never operated properly on a combat mission while undergoing tests by the TRIM Detachment.

The photoprocessor was never designed for an airborne environment and repeatedly failed from film jams and chemical leaks. The problems encountered with this system by NATC continued in VAH-21, however several successful missions were flown, demonstrating that the concept was feasible, but the installed equipment was not completely satisfactory.

F. TELLTALE.

1. TELLTALE equipment was installed in the last two AP-2H aircraft, and several tests were conducted with ground bouys during operations in the Rung Sat SZ. The aircraft was able to monitor the sensors and accurately mark over them. This system was never fully employed, however, since COMNAVFORV had very limited numbers of bouys available and VAH-21 was not cleared to attack targets detected by the bouys.

G. TACTICS.

1. The TRIM Detachment developed a group of tactics based on their experience in combat. VAH-21 followed these guidelines but added on to them as the systems and situations changed. Two waist gunners were added to the flight crew to assist in suppressing hostile fire. MK-6 flares were used in areas where visual checkpoints were scarce. Multiple passes over groundfire sites were conducted, increasing the number of enemy targets destroyed as well as increasing the incidence of AP-2H battle damage. Two bombardiers were used, one using the TV and attacking with bombs while the second used the FLIR and attacked with grenades. Two operators increased the effectiveness of the first pass attack concept.

IV

## TRAINING

A. GENERAL.

1. The fact that training is an accepted fact of life for every Navy unit is recognized, however, due to its unique mission and other problems as explained later, a discussion of training is considered essential.

2. The anticipated 95% personnel turnover between November 1968 and January 1969 required extensive plans for the conduct of a squadron flight and maintenance training program. The original plan specified that all training would be conducted at Naval Station, Sangley Point. In theory this concept was sound since the manning level restrictions in Vietnam forced the squadron to keep about 50% of its people in Sangley. In practice, it fell short of expectations primarily due to limited availability of resources--especially qualified maintenance personnel and avionics equipment. Eventually, a large portion of the operator training was completed on combat sorties in Vietnam and much of the practical training in maintaining the electronics equipment was achieved as on-the-job experience at Cam Ranh Bay. In the final analysis, the only choices available to VAH-21 were to train while operating or temporarily cease operations and train exclusively. Unavailability of CRAG training for TRIM peculiar equipments and limited resources made effective pursuit of both objectives impracticable.

B. ASSETS AND LIABILITIES.

1. A brief list of the assets and liabilities confronting the squadron gives a clear picture of the potential and limitations of the squadron training effort. On the positive side were the following:

a. Well trained and thoroughly experienced operator and maintenance personnel from the NATC Detachment were available through December 1968 to provide support to operations and training.

b. NAESU contracted training programs at Sangley Point were provided to indoctrinate maintenance and flight crews in the operation and repair of TRIM peculiar avionics.

c. Adequate spaces were provided at Sangley to conduct training.

d. Adequate training aids were available for operator training, i.e. LLLTV tapes of combat missions and DLIR film of most RVN operating areas.

e. At the expense of combat availability, aircraft and avionics could be diverted to Sangley to provide bench mock-ups and flight training.

 

The following negative factors were influential:

a. The reporting dates for key personnel were uncertain and provided a very short overlap time. Many NFO's and AT/AX/AQ's failed to report in time to benefit fully from the training programmed.

b. The compromise between assets for training and assets for operations allowed only a short period in which to effectively execute training. Further, commitment of these assets for an extended training period would have slowed operations in Vietnam to a virtual standstill.

c. The replacement personnel were, overall, less schooled and experienced than the people they were to replace. Strikers replaced First Class Petty Officers and Chiefs in numerous instances. The previous experience of most replacements did not relate directly to the operations of VAH-21, thus increasing the training burden.

d. The NAESU contracted training was less effective than anticipated, not because the companies failed to make a thorough and creative effort, but because the unique character of the equipment and operations severely limited the relevance of the material presented by people only casually acquainted with the practical problems encountered by the squadron.

C. FLIGHT CREW TRAINING.

1. Six complete flight crews were eventually trained and combat qualified by VAH-21. The training of the first four crews in November and December 1968 went smoothly and the results were very reassuring. A four week ground school was followed by a series of simulated combat missions over the Philippine "Oil Burner" routes on Luzon. The greatly improved combat effectiveness commencing in late December 1968 was in great measure the direct result of new crews with adequate skills and a very positive attitude.

2. The training for the final two crews was a long and tedious process. Ground schooling was provided by squadron personnel on an as-available basis. Flight training was conducted on combat strikes in Vietnam, sending the student along first as an observer and later as the operator with an experienced instructor at his elbow. Training under combat conditions proved inefficient because the student was under too much pressure and learned little from his errors, thus reducing the combat effectiveness of the mission. Nevertheless, VAH-21 demonstrated that it could be done even though it takes a long time and involves a great deal of wasted effort.

## CONCLUSIONS

1. Successful VAH-21 combat operations in Vietnam substantiate the basic validity of the night attack concept, however the flexibility of the AP-2H is limited by the following:

a. Excessive weight and high parisitic drag reduce the overall performance of the aircraft and limit its operating environment to areas of level terrain and relatively permissive combat locales.

b. Maximum range is severely reduced due to decreased fuel capacity and high fuel consumption rates.

c. The ordnance load is insufficient for an attack aircraft. A full combat load consisted of 2500lbs. wing stores, 1000rds. 40mm, 750rds. 20mm and 5000rds. 7.62mm.

2. Detection ranges for FLIR and TV require significant improvement to permit a consistent one-pass attack capability. This is particularly critical if faster aircraft are used in future programs. A minimum of 15 seconds is necessary from target detection to weapons release if effective platform bombing is to be realized.

3. Forward firing, directionally controlled guns, slaved to the forward sensor systems, are a highly desirable and appropriate weapons system for the COIN environment.

4. It is essential, when a costly weapon system such as Project TRIM receives operational evaluation under actual combat conditions, that a method to accurately assess battle damage be incorporated. Since Project TRIM/VAH-21 operated independently in free fire zones, no external means of gathering this information was available. The only sensor that could record most of this information in the aircraft was the DLIR. This was less than satisfactory because it required a second pass over the target, thus destroying the one-pass concept, and reliability of this sensor was too low. All damage assessment was accomplished by individuals utilizing visual means. Since the only damage that could be detected at night were fires and/or explosions, other damage remained undetected and thus unassessable except in a few instances of excellent visibility.

## APPENDIX I

SUMMER 66 - OPNAV defines requirement for TRIM
FALL 66 - NAVAIRSYSCOM negotiates AP-2H contract with Lockheed
FEB 67 - NATC evaluation team formed at Pax River, Maryland
MAY 67 - AP-2H #1 begins flight testing at Burbank
JUN-OCT 67- NATC flight testing commences at NOTS China Lake
JUL 67 - AP-2H #2 enters flight test phase
SEP 67 - AP-2H #3 enters flight test phase
NOV 67 - Begin simulated COIN OPEVAL at Eglin AFB, Florida
DEC 67 - Project TRIM advance party establishes detachment at NAF Cam Ranh Bay
JAN 68 - AP-2H #2 deploys to Cam Ranh Bay with maintenance vans and personnel
FEB 68 - Begin coastal surveillance patrols in coordination with OPERATION MARKETTIME
MAR 68 - AP-2H #1 and #3 arrive at Cam Ranh Bay
TRIM is first cleared to use offensive ordnance by 7th AF and first strike mission flown
APR 68 - TRIM participates in OPERATION DELTA FALCON along Cambodian Border in IV CTZ
MAY 68 - OPNAV extends TRIM OPEVAL through 1 JUL 68
A/C #4 accepted at Lockheed
JUN 68 - Begin Laos feasibility study in which bambardiers fly Ho Chi Minh Trail with FACS from Pleiku
JUL 68 - TRIM OPEVAL extended through 30 AUG 68
Laos operations cancelled after 2 sorties due poor weather, high AAA resistance and poor aircraft performance
AUG 68 - Danang operations begin
SEP 68 - VAH-21 established at Cam Ranh Bay
Begin Rung Sat SZ operations
OCT 68 - AP-2H #4 arrives at Cam Ranh Bay
Danang operations terminated due weather conditions
NOV 68 - VAH-21 suffers in-country force reduction to 30 TAD spaces
Begin split site operations at NAF Cam Ranh Bay and NS Sangley Point
Change of Command: CDR DUNNAN relieves CDR FORESMAN
Begin OPERATION SEA LORDS/GIANT SLINGSHOT
Begin heavy training operations at Sangley Point
DEC 68 - Two replacement crews combat qualified
50% of original TRIM personnel depart
Viet Cong and North Vietnamese Army begin logistics push for TET
JAN 69 - Personnel turnover 90% complete and 4 combat crews now qualified

FEB 69 - TET Offensive begins. There is a marked increase in combat effectiveness and personnel turnover complete.
MAR 69 - Disestablishment of VAH-21 directed by CNO effective 16 JUN 69
MAY 69 - Six crews now fully operational
JUN 69 - Terminate combat operations on 4 JUN 69
VAH-21 disestablished at NS Sangley Point on 16 JUN 69

APPENDIX II

## OPERATIONAL STATISTICS 1 SEPTEMBER 1968 - 16 JUNE 1969

### FLIGHT HOURS

| | |
|---|---|
| COMBAT | 1015 |
| SUPPORT | 935 |
| TOTAL | 1950 |

(NIGHT TIME 1150; DAY TIME 800)

### OPERATIONAL RESULTS

| | |
|---|---|
| COMBAT MISSIONS FLOWN | 234 |
| REAL TIME DETECTIONS | 2547 |
| TARGETS ATTACKED | 1330 |
| TARGETS DESTROYED | 277 |
| TARGETS DAMAGED | 63 |
| SECONDARY EXPLOSIONS | 172 |
| SUSTAINED FIRES | 77 |
| HITS ON AIRCRAFT FROM ENEMY ACTION | 29 |

### ORDNANCE EXPENDITURES

| | MK-77 | MK-81 | MK-82 | 20MM | 40MM | 7.62MM |
|---|---|---|---|---|---|---|
| VAH-21 | 595 | 144 | 231 | 62,739 | 114,062 | 500,770 |

## APPENDIX III

### AP-2H COMBAT CREW COMPOSITION

| | POSITION | RATING/BACKGROUND |
|---|---|---|
| 1. | PLANE COMMANDER | Second Tour VP Pilot |
| 2. | CO-PILOT | First Tour Pilot |
| 3. | BOMBARDIER | VA or VP NFO |
| 4. | NAVIGATOR | First Tour Pilot or NFO |
| 5. | BOW STARLIGHT SCOPE OPERATOR/PLANE CAPTAIN | AD or AM |
| 6. | DLIR OPERATOR/RADIO | AT or AE |
| 7. | TAIL GUNNER | AO |
| 8. | WAIST GUNNER (2) | AT, AD, AO, AM or AE |

DEPARTMENT OF THE NAVY
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IN REPLY REFER TO:
5720
Ser 14/391
July 24, 2017

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SUBJECT: FREEDOM OF INFORMATION ACT (FOIA) REQUESTS DON-NAVY-2017-003502, 003503, 006851 AND 007402; FOIA APPEALS DON-NAVY-2017 007859, 007860, 007858, AND 008678

This letter responds to your four FOIA appeals dated June 25, 2017, which were received in this office on the same day.

In appeals 007859 and 007860, you challenge the Naval History and Heritage Command (NHHC)'s failure to provide you an update on the status of your underlying requests, 003502 and 003503, in which you ask for records of Observation Squadron Sixty-Seven (VO 67) for the period February 1967 – July 1968 and Heavy Attack Squadron Twenty-One (VAH 21) for the period September 1, 1968 – June 16, 1969, respectively. In appeals 007858 and 008678, you challenge NHHC's closure of your FOIA requests on the basis of an improper FOIA request of your underlying request 006851 for records of Cruiser Scouting Squadron Seven (VCS 7) for the period 1940 – 1946 and the same challenge related to an identical FOIA request you submitted to Commander, Naval Forces Europe and Africa (NAVEUR-NAVAFR).

Your appeals are a request for a final determination under the FOIA. For the reasons set forth below, your appeals are granted in part and denied in part.

FOIA REQUESTS DON-NAVY-2017-003502 AND 003503 AND ASSOCIATED FOIA APPEALS DON-NAVY-2017 007859 AND 007860

In unusual circumstances, an agency can extend the twenty-day time limit for processing a FOIA request by written notice to the requester "setting forth the unusual circumstances for such extension and the date on which a determination is expected to be dispatched." 5 U.S.C. § 552(a)(6)(B)(i).

Following receipt of the two appeals 007859 and 007860, my staff contacted NHHC and confirmed that their FOIA Coordinator contacted you via email and explained the reasons for the delay in processing your FOIA requests. Currently, responses for both requests 003502 and 003503 from NHHC are still awaiting the Original Classification Authority (OCA)'s review of the responsive records (the OCA for these records is Commander, Pacific Fleet, PACFLT). NHHC informed you that Enclosure (5) of DoD Manual 5200.01 requires the OCA to review the records responsive to your FOIA requests prior to release, that PACFLT was the OCA for these

responsive records, and that PACFLT gave an original estimated date of completion of July 5, 2017. I have also confirmed with NHHC, contrary to your assertions, that their command is not 'slow rolling' these requests – PACFLT's security manager has the classification reviews for action. That said, to the extent that you challenge NHHC's failure to respond to you with an updated classification review completion date since we are now beyond July 5, 2017, I am directing by copy of this response that NHHC promptly reach out to you with a new estimated completion date for when the OCA review is expected to be completed.

FOIA REQUESTS DON-NAVY-2017-006851 AND 007402 AND ASSOCIATED FOIA APPEALS DON-NAVY-2017 007858 AND 008678

In regards to appeals 007858 and 008678, you challenge NHHC's closure of your underlying request 006851 on the grounds it was an improper FOIA request and NHHC's failure to compare records they possess related to VCS-7 and records you previously received in a FOIA response from the National Archives and Records Administration (NARA)[1]. As an initial matter, I concur with NHHC's position that there is no obligation under the FOIA for an agency to compare the records you received from one agency (in this case, NARA) with the records another agency (in this case NHHC, as part of the Department of the Navy) might inadvertently have in their possession. Thus, I find that NHHC's closure of your FOIA request to compare records on the grounds it was an improper request under the FOIA was justified. That said, in the interests of justice and transparency under the FOIA, after consulting with NHHC, I have confirmed with their FOIA Coordinator that, contrary to their closure statement on FOIA Online, they actually did send the records they have related to VCS-7 over to NARA so that agency could compare those records against what NARA provided you in your FOIA request to them. NARA confirmed in an email to NHHC that they provided all of the records NHHC possessed related to VCS-7 in their (NARA's) FOIA response to you (in fact, NARA confirmed that not only did they provide you the VCS-7 records that NHHC possessed, they provided you additional records on VCS-7 that NHHC did not possess). Thus, even though your request for a comparison of records between agencies was properly denied as not the proper subject of a FOIA request, I can confirm to you that the comparison you requested in each appeal actually did occur, and all of the copied records NHHC inadvertently has on VCS-7 were already provided to you in the response you received from NARA. Therefore, to the extent that your appeals challenge the failure to compare, it is also denied as moot.

As the Department of the Navy's designated adjudication official for these FOIA appeals, I am responsible for the denial of appeals 007858 and 008678. NHHC will continue to track underlying requests 003502 and 003503, promptly provide you an updated completion date for the classification review being conducted by PACFLT, and deliver to you a final response when they are able. You may seek judicial review of this decision by filing a complaint in an

[1] I note, for purposes of clarity, that request 007402 was actually submitted by you to NAVEUR-NAVAFR; after receiving a 'no records' response from that command, your appeal 008678 is identical to appeal 007858 in that you request a comparison of VCS-7 records held by NHHC and those already provided to you in a response from NARA.

appropriate U.S. District Court. My office represents the U.S. government and is, therefore, unable to assist you in this process.

If you would like to seek dispute resolution services, you have the right to contact the Department of the Navy's FOIA public liaison, Mr. Chris Julka, at christopher.a.julka@navy.mil or (703) 697-0031.

If you have further questions or concerns for my office, my point of contact is LCDR Adam Yost, JAGC, USN, who may be reached at adam.yost@navy.mil or (202) 685-5398.

Sincerely,

G. E. LATTIN
Director
General Litigation Division

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NHHC
NAVEUR-NAVAFR